

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Withdrawn) A method of detecting and measuring cardiac contractile functions using a signal representative of cardiac wall motion provided by an acceleration sensor, said method comprising the steps of:
 - introducing said acceleration sensor unit into a vein of a cardiac wall;
 - positioning said acceleration sensor unit in said vein of said cardiac wall in a manner such that said acceleration sensor unit responds to movement of said cardiac wall and provides said signal representative of cardiac wall movement; and
 - connecting said acceleration sensor unit to an electronic device.
2. (Withdrawn) The method of claim 1, further comprising the step of removing said acceleration sensor from said vein of said cardiac wall.
3. (Withdrawn) The method of claim 1, wherein said vein of said cardiac wall is the coronary sinus vein.
4. (Withdrawn) The method of claim 1, wherein said electronic device is an implantable cardiac resynchronization device.
5. (Withdrawn) The method of claim 1, wherein the step of introducing said acceleration sensor unit into said vein of said cardiac wall comprises the steps of introducing an implantable lead into said vein of said cardiac wall and

inserting said acceleration sensor unit along an inner lumen of said implantable lead.

6. (Withdrawn) The method of claim 5, further comprises the step of removing said acceleration sensor from said vein of said cardiac wall.
7. (Withdrawn) A method of detecting and measuring cardiac contractile functions of a heart using a signal representative of cardiac wall motion provided by an acceleration sensor, said method comprising the steps of:
 - inserting a guide element along an inner lumen of an implantable lead;
 - introducing said implantable lead into said heart;
 - positioning said implantable lead within said heart using said guide element;
 - removing said guide element from said inner lumen of said implantable lead; and
 - subsequent to removing said guide element, inserting said acceleration sensor unit along said inner lumen of said implantable lead.
8. (Withdrawn) The method of claim 7, further comprising the step of removing said acceleration sensor from said inner lumen of said implantable lead.
9. (Withdrawn) The method of claim 7, further comprising the step of connecting said implantable lead and said acceleration sensor unit to an electronic device.
10. (Withdrawn) The method of claim 7, wherein said implantable lead includes one or more electrodes.

11. (Withdrawn) The method of claim 10, wherein said acceleration sensor unit is disposed adjacent to said electrodes.
12. (Withdrawn) The method of claim 7, wherein said implantable lead is positioned within a vein of a cardiac wall of said heart.
13. (Withdrawn) The method of claim 7, wherein said implantable lead is directly attached to a cardiac wall of said heart.
14. (Withdrawn) A method of creating a sensor for detecting and measuring cardiac contractile function, said method comprising the steps of:
 - inserting a cardiac motion sensor along an inner lumen of an implantable lead; and
 - positioning said cardiac motion sensor within said inner lumen of said implantable lead such that said cardiac motion sensor remains mobile relative to the longitudinal axis of said implantable lead.
15. (Withdrawn) The method of claim 14, further comprising the step of removing said cardiac motion sensor from said inner lumen of said implantable lead.
16. (Withdrawn) The method of claim 14, wherein said cardiac motion sensor comprises an accelerometer.
17. (Withdrawn) The method of claim 14, wherein prior to inserting said cardiac motion sensor along said inner lumen of said implantable lead, said method further comprises the steps of:
 - connecting a conductor to said cardiac motion sensor;

passing said conductor through said inner lumen of said implantable lead;
and

connecting said conductor to an electrical device such that said conductor
fixes said cardiac motion sensor relative to the longitudinal axis of said lead.

18. (Withdrawn) The method of claim 17, further comprising the step of
removing said cardiac motion sensor from said inner lumen of said
implantable lead.
19. (Withdrawn) The method of claim 14, wherein prior to inserting said cardiac
motion sensor along said inner lumen of said implantable lead, said method
further comprises the steps of:
 - inserting a guide element along the inner lumen of said implantable lead;
 - introducing said implantable lead into a vein of a cardiac wall;
 - positioning said implantable lead within said vein using said guide
element; and
 - removing said guide element from said inner lumen of said implantable
lead.
20. (Withdrawn) The method of claim 18, further comprising the step of
removing said cardiac motion sensor from said inner lumen of said
implantable lead.
21. (Withdrawn) The method of claim 13, wherein prior to inserting said cardiac
motion sensor along said inner lumen of said implantable lead, said method
further comprising the step of attaching the implantable lead directly to a
cardiac wall.

22. (Currently Amended) A cardiac motion sensor unit comprising:

~~an acceleration~~ a sensing device that generates a signal representative of movement of a cardiac wall when the ~~acceleration~~ sensing device is disposed at the cardiac wall, said sensing device configured to be disposed within an inner lumen of a cylindrical lead, wherein said cylindrical lead comprises a conductor for sensing cardiac electrical activity and delivering stimulation to said cardiac wall, said sensing device electrically connected to an electronic device for transmission of said signal representative of movement of said cardiac wall from said sensing device to said electronic device; and

~~a conductor device molded into an elongated insulator body that transmits said signal representative of movement of said cardiac wall from said acceleration sensing device to an electronic device;~~

a second cylindrical lead configured to operate as a conductor for sensing cardiac electrical activity and delivering stimulation to said cardiac wall, said second cylindrical lead concentrically encompassing said cylindrical lead;

~~a connector device that electrically links said conductor device to said connector configured for removable attachment of the motion sensor unit to said electronic device.~~

23. (Currently Amended) The cardiac motion sensor unit of claim 22, wherein said ~~acceleration~~ sensing device is configured to be disposed within a vein of said cardiac wall.

24. (Original) The cardiac motion sensor unit of claim 22, wherein said sensing device comprises an accelerometer.

25. (Currently Amended) The cardiac motion sensor unit of claim 22, including a ~~wherein said conductor device comprises comprising~~ two electrical conductors molded into an elongated insulator body that transmits said signal representative

of said cardiac wall accelerations movements from said sensing device to said electronic device.

26. (Currently Amended) The cardiac motion sensor unit of claim [22] 25, wherein said elongated insulator body comprises a polymer.

27. (Currently Amended) The cardiac motion sensor unit of claim 22, wherein said acceleration sensing device is configured to be disposed within an inner lumen of a cylindrical lead wherein said cylindrical lead and said second cylindrical lead further comprise a coiled electrically conductive material.

28. (Currently Amended) The cardiac motion sensor unit of claim 27, wherein said cylindrical lead comprises a conductive means for sensing cardiac electrical activity and delivering stimulation to said cardiac wall.

29. (Currently Amended) A cardiac motion sensor unit comprising:
an acceleration sensing device that generates a signal representative of
movement of a cardiac wall when the acceleration sensing device is disposed at
the cardiac wall;
a cylindrical lead operatively connected to the acceleration sensing device,
wherein said cylindrical lead is operatively configured as a conductor for
transmitting at least said signal representative of movement of a cardiac wall;
~~The cardiac motion sensor unit of claim 28, further comprising~~ a second cylindrical lead with conductive means for sensing cardiac electrical activity and delivering stimulation to said cardiac wall, said second cylindrical lead concentrically encompassing said cylindrical lead; and
a connector device that electrically links a conductor device to said
acceleration sensing device.

30. (Currently Amended) The cardiac motion sensor unit of claim [29] 22, wherein said cylindrical lead and said second cylindrical lead further comprise a coiled electrically conductive material.
31. (Currently Amended) The cardiac motion sensor unit of claim [29] 22, wherein said cardiac motion sensor unit further comprises an electrode device for delivering electric stimulation to said cardiac wall.
32. (Once Amended) A cardiac motion sensor unit comprising:
acceleration sensing means for providing a signal representative of a cardiac wall movement when disposed at the cardiac wall, wherein said acceleration sensing means is disposed within an inner lumen of a cylindrical lead, wherein said cylindrical lead comprises a conductive means for sensing cardiac electrical activity and delivering stimulation to said cardiac wall;
a second cylindrical lead with conductive means for sensing cardiac electrical activity and delivering stimulation to said cardiac wall, said second cylindrical lead concentrically encompassing said cylindrical lead;
conductor means molded into an elongated insulator body for transmitting said signal representative of movement of said cardiac wall from said acceleration sensing means to an electronic sensing means; and
connector means for electrically linking said conductor means to said electronic sensing means, wherein said conductor means is configured for removable attachment of the motion sensor unit to said electronic sensing means.
33. (Previously Amended) The cardiac motion sensor unit of claim 32, wherein said acceleration sensing means is configured to be disposed within a vein of said cardiac wall.

34. (Original) The cardiac motion sensor unit of claim 32, wherein said cardiac wall acceleration sensing means comprises an accelerometer.
35. (Original) The cardiac motion sensor unit of claim 32, wherein said conductor means comprises two electrical conductor means molded into an insulate elongate body for transmitting said signal representative of said cardiac wall movement to said electronic sensing means.
36. (Original) The cardiac motion sensor unit of claim 32, wherein said insulator comprises a polymer.
37. (Cancelled) The cardiac motion sensor unit of claim 32, wherein said acceleration sensing means is disposed within an inner lumen of a cylindrical lead.
38. (Cancelled) The cardiac motion sensor unit of claim 37, wherein said cylindrical lead comprises a conductive means for sensing cardiac electrical activity and delivering stimulation to said cardiac wall.
39. (Cancelled) The cardiac motion sensor unit of claim 38, further comprising a second cylindrical lead with conductive means for sensing cardiac electrical activity and delivering stimulation to said cardiac wall, said second cylindrical lead concentrically encompassing said cylindrical lead.
40. (Original) The cardiac motion sensor unit of claim 39, wherein said cylindrical lead and said second cylindrical lead further comprise a coiled electrically conductive material.